

April 13, 2021

#### BY MAIL

Director, Division of Environmental Protection Virgin Islands Department of Planning and Natural Resources 45 Estate Mars Hill Frederiksted, St. Croix, U.S. Virgin Islands 00840-4474

#### BY ELECTRONIC MAIL

Honorable Jean-Pierre L. Oriol Commissioner Division of Environmental Protection 4607 Tutu Park Mall Charles Turnbull Regional Library St. Thomas VI 00802 U.S. Virgin Islands

Director
Air Enforcement Division
Office of Civil Enforcement (2242A)
Office of Enforcement and Compliance
Assurance
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, DC 20044

Director
Air Enforcement Division
Office of Civil Enforcement
c/o Matrix New World Engineering, Inc.
26 Columbia Turnpike, Suite 200
Florham Park, NJ 07932-2213

Director Enforcement and Compliance Assistance Division U.S. EPA Region 2 290 Broadway, 21st Floor New York, NY 10007-1866

United States Environmental Protection Agency Region 2 Office of Regional Counsel 290 Broadway New York, NY 10007

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jp.oriol@dpnr.vi.gov foley.patrick@epa.gov patel.harish@epa.gov jmack@matrixneworld.com

#### **Re:** Recordkeeping and Reporting for First Year of Operations

To Whom It May Concern:

Limetree Bay Refining, LLC and Limetree Bay Terminals, LLC (collectively "Limetree") are submitting this report in accordance with Subparagraphs 50C.b and 50B.b.iii. of the First Modification of the Consent Decree (Civil Action No. 1:11-CV-00006).

Restart of the FCCU Low Pressure Flare occurred on September 15, 2020, and the first sixmonth period ended on March 14, 2021. Flare 3 has not been restarted. The following information is being submitted within 30 days of the end of the first six-month block period after Restart of the FCCU Low Pressure Flare in accordance with Subparagraph 50C.b.

• **Subparagraph 50C.b.i.**: The quantity of all gases in scfd sent to each flare for the period covering the six-month block period preceding the date of the report, on both a cumulative and per-day basis.

See Attachment A under the heading "VG FLOWT" for the cumulative and perday flow data for the FCCU Low Pressure Flare. No gases were sent to Flare 3.

• **Subparagraph 50C.b.ii.**: The quantity of hydrogen from initial reformer restart combusted in the FCCU Low Pressure Flare on both a cumulative and per-day basis.

See Attachment A under the heading "PLT4FLWH."

Limetree operates a flow meter on the FCCU Low Pressure Flare to measure the flow of vent gas to the flare ("vent gas flow meter") and a flow meter on the #4 Platformer recycle gas stream to the flare ("Plat 4 flow meter"), which is used in conjunction with lab analysis to quantify the hydrogen flow to the FCCU Low Pressure Flare from Plat 4. High hydrogen levels in the vent gas lowered the molecular weight of the vent gas causing inconsistent readings from the vent gas flow meter. This impact was confirmed by the manufacturer of the flow meter.

During time periods when vent gas flow meter data were inconsistent, an engineering estimation procedure was used to determine the vent gas flow by relying on measurements from the Plat 4 flow meter, lab analysis of the stream composition from the reformer to the FCCU Low Pressure Flare, and the hydrogen content of the vent gas measured by the mass spectrometer at the vent gas header to the flare. This estimation procedure is used to address inaccuracies in the vent

gas flow meter during non-routine operations (e.g., during initial reformer restart) and reflects a more conservative estimation of vent gas flow than using raw, measured values from the vent gas flow meter.

• Subparagraph 50.C.b.iv.: Notification of whether the total gas quantity specified in Subparagraph 50B.a.i or a.ii has been exceeded.

The total gas quantity specified in Subparagraph 50B.a.i was exceeded due to the flow of gases from startup, shutdown, malfunction events occurring during the restart. As you know, the restart has taken longer than expected due to unanticipated circumstances beyond Limetree's control and, at this time, Limetree does not have any operational data from a period of normal operations upon which to base the design of flare gas recovery ("FGR"). Limetree is therefore currently evaluating whether it will be possible to design, install, and begin operating FGR within two years.

In accordance with Subparagraph 50B.b.iii, Limetree is also providing notice that it exercised the option to shift 50,000 scfd from the FCCU Low Pressure Flare to Flare 3 on March 14, 2021. Limetree elected to do so because it triggered the obligation to install FGR on the FCCU Low Pressure Flare, which will result in a substantial reduction in flow to the FCCU Low Pressure Flare, but has not yet restarted Flare 3. Accordingly, the average gas quantity for Flare 3 in Subparagraph 50B.b.ii changes from 250,000 scfd to 300,000 scfd combined flow of all gases.

I certify under penalty of law that this information was prepared under my direction or supervision by personnel qualified to properly gather and evaluate the information submitted. Based on my directions and after reasonable inquiry of the person(s) directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Please do not hesitate to contact Craig Miller by phone (340-692-3612) or email (<u>CTmiller@lbenergy.com</u>) with questions regarding this report.

Very truly yours,

Jeffrey Rinker

CEO, Limetree Bay Ventures

cc: Verline Marcellin (via electronic mail)

Austin Callwood (via electronic mail)

David Molloy, Esq. (via electronic mail)

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Ryan Biggs (via electronic mail)
Craig Miller (via electronic mail)
Catherine Elizee (via electronic mail)
LeAnn Johnson Koch, Esq. (via electronic mail)

# Attachment A

#### Plant: LIMETREE BAY REFINERY

Interval: 1 Day Type: Block

Report Period: 09/15/2020 00:00 Through 03/14/2021 23:59 Time Online Criteria: 1 minute(s)

Source		FLARE08		
Paramet Unit	ter	PLT4FLWH (SCF)	VG_FLOWT (SCF)	Combined flow of all gases other than hydrogen from initial reformer restart (SCF)
09/15/20	00:00	0.0 1	204,324.8	204,324.8
09/16/20	00:00	0.0 1	803,484.4	803,484.4
09/17/20	00:00	0.0 1	294,529.3	294,529.3
09/18/20	00:00	0.0 1	339,260.5	339,260.5
09/19/20	00:00	0.0 1	356,689.1	356,689.1
09/20/20	00:00	0.0 1	279,396.3	279,396.3
09/21/20	00:00	0.0 1	356,492.1	356,492.1
09/22/20	00:00	0.0 1	577,754.4	577,754.4
09/23/20	00:00	0.0 1	1,019,828.3	1,019,828.3
09/24/20	00:00	0.0 1	795,268.5	795,268.5
09/25/20	00:00	0.0 1	404,863.6	404,863.6
09/26/20	00:00	0.0 1	304,435.5	304,435.5
09/27/20	00:00	0.0 1	265,829.3	265,829.3
09/28/20	00:00	0.0 1	290,402.3	290,402.3
09/29/20	00:00	0.0 1	597,228.8	597,228.8
09/30/20	00:00	0.0 1	870,782.6	870,782.6
10/01/20	00:00	0.0 1	1,247,712.5	1,247,712.5
10/02/20	00:00	0.0 1	1,228,732.4	1,228,732.4
10/03/20	00:00	0.0	1,166,817.7	1,166,817.7
10/04/20	00:00	0.0 1	1,005,906.2	1,005,906.2
10/05/20	00:00	0.0	871,674.6	871,674.6
10/06/20	00:00	0.0	927,401.4	927,401.4
10/07/20	00:00	0.0	567,773.0	567,773.0
10/08/20	00:00	0.0	650,318.0	650,318.0
10/09/20	00:00	0.0 1	907,167.5	907,167.5
10/10/20	00:00	0.0	412,231.1	412,231.1
10/11/20	00:00	0.0	1,769,340.1	1,769,340.1
10/12/20	00:00	0.0	1,714,072.0	1,714,072.0
10/13/20	00:00	0.0 1	699,679.8	699,679.8
10/14/20	00:00	0.0 1	494,973.0	494,973.0
10/15/20	00:00	0.0	552,158.8	552,158.8
10/16/20	00:00	0.0 1	630,960.4	630,960.4
10/17/20	00:00	0.0 1	781,345.3	781,345.3
10/18/20	00:00	0.0 1	969,654.6	969,654.6
10/19/20	00:00	0.0 1	736,136.5	736,136.5
10/20/20	00:00	0.0 1	764,372.6	764,372.6
10/21/20	00:00	0.0 1	828,165.2	828,165.2

F = Unit Offline E = Exceedance M = Maintenance T = Out Of Control

Report Generated: 03/26/21 17:32

#### Plant: LIMETREE BAY REFINERY

Interval: 1 Day Type: Block

Report Period: 09/15/2020 00:00 Through 03/14/2021 23:59 Time Online Criteria: 1 minute(s)

10/00/00	00.00		mine Criteria. Trimute(s)	4 405 000 0
10/22/20	00:00	0.0 1	1,425,996.0	1,425,996.0
10/23/20	00:00	0.0	3,552,618.8	3,552,618.8
10/24/20	00:00	0.0	1,119,871.2	1,119,871.2
10/25/20	00:00	0.0 1	943,547.4	943,547.4
10/26/20	00:00	0.0 1	1,194,493.2	1,194,493.2
10/27/20	00:00	0.0	824,303.6	824,303.6
10/28/20	00:00	0.0 1	643,756.9	643,756.9
10/29/20	00:00	0.0 1	967,151.6	967,151.6
10/30/20	00:00	0.0 1	811,892.9	811,892.9
10/31/20	00:00	0.0 1	655,491.6	655,491.6
11/01/20	00:00	0.0 1	792,466.2	792,466.2
11/02/20	00:00	0.0 I	723,824.1	723,824.1
11/03/20	00:00	0.0 I	1,223,283.4	1,223,283.4
11/04/20	00:00	0.0 1	638,356.1	638,356.1
11/05/20	00:00	0.0 1	907,407.5	907,407.5
11/06/20	00:00	0.0 1	1,091,241.2	1,091,241.2
11/07/20	00:00	0.0 1	908,742.4	908,742.4
11/08/20	00:00	0.0 1	1,423,492.7	1,423,492.7
11/09/20	00:00	0.0 1	446,893.9	446,893.9
11/10/20	00:00	0.0 1	449,088.1	449,088.1
11/11/20	00:00	0.0 1	918,386.8	918,386.8
11/12/20	00:00	0.0 1	815,199.8	815,199.8
11/13/20	00:00	0.0 1	828,442.3	828,442.3
11/14/20	00:00	0.0 1	579,787.9	579,787.9
11/15/20	00:00	0.0 1	504,310.5	504,310.5
11/16/20	00:00	0.0 1	958,818.2	958,818.2
11/17/20	00:00	0.0 I	1,180,299.6	1,180,299.6
11/18/20	00:00	0.0 1	835,320.5	835,320.5
11/19/20	00:00	0.0 1	433,428.7	433,428.7
11/20/20	00:00	0.0 I	876,216.4	876,216.4
11/21/20	00:00	219,188.7	926,819.6	707,630.9
11/22/20	00:00	121,854.8	974,284.7	852,429.9
11/23/20	00:00	3,875,279.3	4,585,264.1	709,984.8
11/24/20	00:00	825,017.0	2,394,144.0	1,569,127.0
11/25/20	00:00	94,429.8	1,856,374.9	1,761,945.1
11/26/20	00:00	3,512,698.1	4,618,504.4	1,105,806.3
11/27/20	00:00	22,970,072.6	25,589,700.2	2,619,627.6
11/28/20	00:00	23,369,348.1	26,675,122.6	3,305,774.5
11/29/20	00:00	11,694,513.6	13,997,749.1	2,303,235.5
11/30/20	00:00	178.2	1,122,991.4	1,122,813.2
12/01/20	00:00	0.0	760,165.4	760,165.4

F = Unit Offline

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T = Out Of Control

Report Generated: 03/26/21 17:32

#### Plant: LIMETREE BAY REFINERY

Interval: 1 Day Type: Block

Report Period: 09/15/2020 00:00 Through 03/14/2021 23:59 Time Online Criteria: 1 minute(s)

			iline Criteria. Trilinute(s)	
12/02/20	00:00	79,556.0	806,986.6	727,430.6
12/03/20	00:00	92,639.0	704,938.3	612,299.3
12/04/20	00:00	0.0 1	593,953.0	593,953.0
12/05/20	00:00	24,206.1	841,743.5	817,537.4
12/06/20	00:00	50,894.7	1,263,667.7	1,212,773.0
12/07/20	00:00	0.0 1	4,787,572.6	4,787,572.6
12/08/20	00:00	346,086.8	2,015,781.7	1,669,694.9
12/09/20	00:00	64,838.8	1,482,061.1	1,417,222.3
12/10/20	00:00	150.3	1,326,994.7	1,326,844.4
12/11/20	00:00	0.0 I	1,033,605.2	1,033,605.2
12/12/20	00:00	0.0 1	863,427.5	863,427.5
12/13/20	00:00	0.0 1	909,083.0	909,083.0
12/14/20	00:00	0.0 1	557,301.6	557,301.6
12/15/20	00:00	714,118.8	1,569,613.3	855,494.5
12/16/20	00:00	512,553.1	2,617,564.1	2,105,011.0
12/17/20	00:00	0.0 1	1,027,947.0	1,027,947.0
12/18/20	00:00	1,874,220.6	3,425,929.9	1,551,709.3
12/19/20	00:00	827,565.5	3,091,583.5	2,264,018.0
12/20/20	00:00	1,166,094.9	2,623,965.6	1,457,870.7
12/21/20	00:00	13,407,424.5	17,697,014.8	4,289,590.3
12/22/20	00:00	19,665,242.1	22,280,938.0	2,615,695.9
12/23/20	00:00	9,933,637.3	11,648,373.1	1,714,735.8
12/24/20	00:00	20,497,637.7	22,563,901.0	2,066,263.3
12/25/20	00:00	19,398,493.3	21,726,672.5	2,328,179.2
12/26/20	00:00	22,529,644.2	25,399,990.3	2,870,346.1
12/27/20	00:00	21,954,387.2	25,180,441.3	3,226,054.1
12/28/20	00:00	10,548,970.3	14,142,455.4	3,593,485.1
12/29/20	00:00	6,288,421.0	11,947,850.9	5,659,429.9
12/30/20	00:00	14,848,147.0	16,801,915.6	1,953,768.6
12/31/20	00:00	10,296,859.7	12,530,691.9	2,233,832.2
01/01/21	00:00	5,534,158.2	7,882,118.3	2,347,960.1
01/02/21	00:00	0.0 1	3,652,322.8	3,652,322.8
01/03/21	00:00	0.0 1	3,616,894.8	3,616,894.8
01/04/21	00:00	0.0 1	2,440,644.4	2,440,644.4
01/05/21	00:00	3,229,646.1	5,930,320.9	2,700,674.8
01/06/21	00:00	6,246,734.9	7,911,926.9	1,665,192.0
01/07/21	00:00	4,068,215.7	7,115,210.0	3,046,994.3
01/08/21	00:00	4,465,365.3	6,581,814.0	2,116,448.7
01/09/21	00:00	6,671,729.1	10,870,496.9	4,198,767.8
01/10/21	00:00	7,180,781.3	12,547,231.5	5,366,450.2
01/11/21	00:00	9,820,586.4	14,467,579.1	4,646,992.7

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Report Generated: 03/26/21 17:32

# Plant: LIMETREE BAY REFINERY Interval: 1 Day

Type: Block

Report Period: 09/15/2020 00:00 Through 03/14/2021 23:59 Time Online Criteria: 1 minute(s)

		Time C	Inline Criteria: 1 minute(s)	
01/12/21	00:00	19,442,288.3	26,044,104.4	6,601,816.1
01/13/21	00:00	18,873,392.1	25,833,508.8	6,960,116.7
01/14/21	00:00	22,485,643.5	30,190,411.0	7,704,767.5
01/15/21	00:00	20,345,126.9	26,543,605.2	6,198,478.3
01/16/21	00:00	15,042,923.3	19,034,668.6	3,991,745.3
01/17/21	00:00	12,756,381.9	15,851,556.8	3,095,174.9
01/18/21	00:00	17,230,279.6	22,394,329.6	5,164,050.0
01/19/21	00:00	17,460,099.4	24,308,108.2	6,848,008.8
01/20/21	00:00	20,587,685.4	28,803,501.8	8,215,816.4
01/21/21	00:00	21,529,426.7	29,114,839.6	7,585,412.9
01/22/21	00:00	15,216,934.8	21,941,309.3	6,724,374.5
01/23/21	00:00	17,151,747.1	25,529,689.1	8,377,942.0
01/24/21	00:00	19,062,726.1	24,681,713.7	5,618,987.6
01/25/21	00:00	19,502,991.2	30,314,680.5	10,811,689.3
01/26/21	00:00	15,733,514.4	20,235,147.5	4,501,633.1
01/27/21	00:00	20,573,801.0	27,987,382.1	7,413,581.1
01/28/21	00:00	9,590,501.0	13,700,210.9	4,109,709.9
01/29/21	00:00	5,721,467.0	8,070,566.0	2,349,099.0
01/30/21	00:00	8,905,504.8	11,863,360.9	2,957,856.1
01/31/21	00:00	15,819,845.3	20,270,672.5	4,450,827.2
02/01/21	00:00	8,410,874.8	18,151,987.0	9,741,112.2
02/02/21	00:00	23,770,821.4	28,168,085.0	4,397,263.6
02/03/21	00:00	15,328,814.7	19,964,375.5	4,635,560.8
02/04/21	00:00	23,284,278.3	27,479,313.8	4,195,035.5
02/05/21	00:00	18,836,561.8	22,701,443.4	3,864,881.6
02/06/21	00:00	14,138,149.2	16,983,926.0	2,845,776.8
02/07/21	00:00	9,398,953.1	11,333,723.2	1,934,770.1
02/08/21	00:00	9,693,542.9	11,506,119.8	1,812,576.9
02/09/21	00:00	7,779,722.1	10,790,243.0	3,010,520.9
02/10/21	00:00	9,851,616.0	11,845,905.5	1,994,289.5
02/11/21	00:00	8,097,428.1	9,707,148.5	1,609,720.4
02/12/21	00:00	9,213,436.0	11,244,896.4	2,031,460.4
02/13/21	00:00	10,245,700.7	12,118,927.9	1,873,227.2
02/14/21	00:00	11,410,512.0	13,180,837.7	1,770,325.7
02/15/21	00:00	15,867,341.8	17,834,614.7	1,967,272.9
02/16/21	00:00	16,002,730.6	18,646,443.0	2,643,712.4
02/17/21	00:00	9,189,343.8	11,036,414.7	1,847,070.9
02/18/21	00:00	9,786,702.2	11,538,586.6	1,751,884.4
02/19/21	00:00	8,880,669.0	10,323,609.0	1,442,940.0
02/20/21	00:00	13,715,714.7	15,490,319.3	1,774,604.6
02/21/21	00:00	14,214,914.6	15,779,108.7	1,564,194.1

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02/22/21	00:00	15,223,328.5	16,953,131.5	1,729,803.0
02/23/21	00:00	12,643,052.7	15,575,676.2	2,932,623.5
02/24/21	00:00	11,642,432.4	14,163,328.1	2,520,895.7
02/25/21	00:00	11,326,546.5	14,124,720.0	2,798,173.5
02/26/21	00:00	3,860,297.1	7,523,290.1	3,662,993.0
02/27/21	00:00	2,813,064.7	7,309,517.9	4,496,453.2
02/28/21	00:00	8,162,042.8	10,247,399.9	2,085,357.1
03/01/21	00:00	12,973,704.7	15,133,675.5	2,159,970.8
03/02/21	00:00	7,684,985.6	9,737,110.7	2,052,125.1
03/03/21	00:00	7,974,496.4	10,807,327.0	2,832,830.6
03/04/21	00:00	5,280,419.9	8,749,313.4	3,468,893.5
03/05/21	00:00	4,521,660.5	8,173,257.5	3,651,597.0
03/06/21	00:00	4,763,535.6	8,926,499.5	4,162,963.9
03/07/21	00:00	4,810,771.1	11,153,915.7	6,343,144.6
03/08/21	00:00	8,772,370.6	10,861,790.1	2,089,419.5
03/09/21	00:00	6,764,448.8	8,901,437.6	2,136,988.8
03/10/21	00:00	3,870,908.9	9,522,463.8	5,651,554.9
03/11/21	00:00	3,565,297.8	8,039,458.2	4,474,160.4
03/12/21	00:00	4,180,893.8	10,329,937.7	6,149,043.9
03/13/21	00:00	8,333,675.5	10,253,510.1	1,919,834.6
03/14/21	00:00	9,068,473.5	10,892,809.8	1,824,336.3

Average	10,169,010.7	8,073,270.2
Minimum	150.3	204,324.8
Maximum	23,770,821.4	30,314,680.5
Summation	1,047,408,101.1	1,461,261,902.2
Geometric Mean	4,845,275.6	3,326,091.4
Included Data Points	103	181
Total number of Data	181	181

F = Unit Offline E = Exceedance M = Maintenance T = Out Of Control

Report Generated: 03/26/21 17:32